

(vi) *Priority pollutants* are those pollutants listed in appendix A to 40 CFR part 423.

(vii) *Secondary treatment* means the stage in sewage treatment in which a bacterial process (or an equivalent process) consumes the organic parts of wastes, usually by trickling filters or an activated sludge process.

(viii) *Sewage sludge* is defined in 40 CFR 122.2 and includes septage.

(ix) *Toxic pollutants* are those pollutants listed in 40 CFR 401.15.

(c) *Other property not included in the definition of a sewage facility.* Property other than property described in paragraph (b)(1) of this section is not a sewage facility. Thus, for example, property is not a sewage facility, or functionally related and subordinate property, if the property is used for pretreatment of wastewater (whether or not this treatment is necessary to perform preliminary, primary, secondary, advanced, or tertiary treatment), or the related collection, storage, use, processing, or final disposal of the wastewater. In addition, property used to treat, process, or use wastewater subsequent to the time the wastewater can be discharged into navigable waters, as defined in 33 U.S.C. 1362, is not a sewage facility.

(d) *Allocation of costs.* In the case of property that has both a use described in paragraph (b)(1) of this section (a sewage treatment function) and a use other than sewage treatment, only the portion of the cost of the property allocable to the sewage treatment function is taken into account as an expenditure to provide sewage facilities. The portion of the cost of property allocable to the sewage treatment function is determined by allocating the cost of that property between the property's sewage treatment function and any other uses by any method which, based on all the facts and circumstances, reasonably reflects a separation of costs for each use of the property.

(e) *Effective date*—(1) *In general.* This section applies to issues of bonds issued after February 21, 1995.

(2) *Refundings.* In the case of a refunding bond issued to refund a bond to which this section does not apply, the issuer need not apply this section to that refunding bond. This paragraph

(e)(2) applies only if the weighted average maturity of the refunding bonds, as described in section 147(b), is not greater than the remaining weighted average maturity of the refunded bonds.

[T.D. 8576, 59 FR 66163, Dec. 23, 1994, as amended by T.D. 9546, Aug. 19, 2011]

#### § 1.142(a)(6)-1 Exempt facility bonds: solid waste disposal facilities.

(a) *In general.* This section defines the term solid waste disposal facility for purposes of section 142(a)(6).

(b) *Solid waste disposal facility.* The term *solid waste disposal facility* means a facility to the extent that the facility—

(1) Processes solid waste (as defined in paragraph (c) of this section) in a qualified solid waste disposal process (as defined in paragraph (d) of this section);

(2) Performs a preliminary function (as defined in paragraph (f) of this section); or

(3) Is functionally related and subordinate (within the meaning of § 1.103-8(a)(3)) to a facility described in paragraph (b)(1) or (b)(2) of this section.

(c) *Solid waste*—(1) *In general.* Except to the extent excluded under paragraph (c)(2) of this section, for purposes of section 142(a)(6), the term *solid waste* means garbage, refuse, and other solid material derived from any agricultural, commercial, consumer, governmental, or industrial operation or activity if the material meets the requirements of both paragraph (c)(1)(i) and paragraph (c)(1)(ii) of this section. For purposes of this section, material is solid if it is solid at ambient temperature and pressure.

(i) *Used material or residual material.* Material meets the requirements of this paragraph (c)(1)(i) if it is either used material (as defined in paragraph (c)(1)(i)(A)) of this section or residual material (as defined in paragraph (c)(1)(i)(B) of this section).

(A) *Used material.* The term *used material* means any material that is a product of any agricultural, commercial, consumer, governmental, or industrial operation or activity, or a component of any such product or activity, and that has been used previously. Used material also includes animal waste

produced by animals from a biological process.

(B) *Residual material.* The term *residual material* means material that meets the requirements of this paragraph (c)(1)(i)(B). The material must be a residual byproduct or excess raw material that results from or remains after the completion of any agricultural, commercial, consumer, governmental, or industrial production process or activity or from the provision of any service. In the case of multiple processes constituting an integrated manufacturing or industrial process, the material must result from or remain after the completion of such integrated process. As of the issue date of the bonds used to finance the solid waste disposal facility, the material must be reasonably expected to have a fair market value that is lower than the value of all of the products made in that production process or lower than the value of the service that produces such residual material.

(ii) *Reasonably expected introduction into a qualified solid waste disposal process.* Material meets the requirements of this paragraph (c)(1)(ii) if it is reasonably expected by the person who generates, purchases, or otherwise acquires it to be introduced within a reasonable time after such generation, purchase or acquisition into a qualified solid waste disposal process described in paragraph (d) of this section.

(2) *Exclusions from solid waste.* The following materials do not constitute solid waste:

(i) *Virgin material.* Except to the extent that virgin material constitutes an input to a final disposal process or residual material, solid waste excludes any virgin material. The term *virgin material* means material that has not been processed into an agricultural, commercial, consumer, governmental, or industrial product, or a component of any such product. Further, for this purpose, material continues to be virgin material after it has been grown, harvested, mined, or otherwise extracted from its naturally occurring location and cleaned, divided into component elements, modified, or enhanced, as long as further processing is required before it becomes an agricultural, commercial, consumer, or indus-

trial product, or a component of any such product.

(ii) *Solids within liquids and liquid waste.* Solid waste excludes any solid or dissolved material in domestic sewage or other significant pollutant in water resources, such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flows or other common water pollutants, and liquid or gaseous waste.

(iii) *Precious metals.* Except to the extent that a precious metal constitutes an input to a final disposal process and/or an unrecoverable trace of the particular precious metal, solid waste excludes gold, silver, ruthenium, rhodium, palladium, osmium, iridium, platinum, gallium, rhenium, and any other precious metal material as may be identified by the Internal Revenue Service in future public administrative guidance.

(iv) *Hazardous material.* Solid waste excludes any hazardous material that must be disposed of at a facility that is subject to final permit requirements under subtitle C of title II of the Solid Waste Disposal Act as in effect on the date of the enactment of the Tax Reform Act of 1986 (which is October 22, 1986). See section 142(h)(1) of the Internal Revenue Code for the definition of qualified hazardous waste facilities.

(v) *Radioactive material.* Solid waste excludes any radioactive material subject to regulation under the Nuclear Regulatory Act (10 CFR 1.1 *et seq.*), as in effect on the issue date of the bonds.

(d) *Qualified solid waste disposal process.* The term *qualified solid waste disposal process* means the processing of solid waste in a final disposal process (as defined in paragraph (d)(1) of this section), an energy conversion process (as defined in paragraph (d)(2) of this section), or a recycling process (as defined in paragraph (d)(3) of this section). Absent an express restriction to the contrary in this section, a qualified solid waste disposal process may employ any biological, engineering, industrial, or technological method.

(1) *Final disposal process.* The term *final disposal process* means the placement of solid waste in a landfill (including, for this purpose, the spreading

of solid waste over land in an environmentally compliant and safe manner with no intent to remove such solid waste), the incineration of solid waste without capturing any useful energy, or the containment of solid waste with a reasonable expectation as of the date of issue of the bonds that the containment will continue indefinitely and that the solid waste has no current or future beneficial use.

(2) *Energy conversion process.* The term *energy conversion process* means a thermal, chemical, or other process that is applied to solid waste to create and capture synthesis gas, heat, hot water, steam, or other useful energy. The energy conversion process begins at the point of the first application of such process. The energy conversion process ends at the point at which the useful energy is first created, captured, or incorporated into the form of synthesis gas, heat, hot water, or other useful energy and before any transfer or distribution of such synthesis gas, heat, hot water or other useful energy, regardless of whether such synthesis gas, heat, hot water, or other useful energy constitutes a first useful product within the meaning of paragraph (e) of this section.

(3) *Recycling process*—(i) *In general.* The term *recycling process* means reconstituting, transforming, or otherwise processing solid waste into a useful product. The recycling process begins at the point of the first application of a process to reconstitute or transform the solid waste into a useful product, such as decontamination, melting, repulping, shredding, or other processing of the solid waste to accomplish this purpose. The recycling process ends at the point of completion of production of the first useful product from the solid waste.

(ii) *Refurbishment, repair, or similar activities.* The term *recycling process* does not include refurbishment, repair, or similar activities. The term *refurbishment* means the breakdown and reassembly of a product if such activity is done on a product-by-product basis and if the finished product contains more than 30 percent of its original materials or components.

(e) *First useful product.* The term *first useful product* means the first product

produced from the processing of solid waste in a solid waste disposal process that is useful for consumption in agricultural, consumer, commercial, governmental, or industrial operation or activity and that could be sold for such use, whether or not actually sold. A useful product includes both a product useful to an individual consumer as an ultimate end-use consumer product and a product useful to an industrial user as a material or input for processing in some stage of a manufacturing or production process to produce a different end-use consumer product. The determination of whether a useful product has been produced may take into account operational constraints that affect the point in production when a useful product reasonably can be extracted or isolated and sold independently. For this purpose, the costs of extracting, isolating, storing, and transporting the product to a market may only be taken into account as operational constraints if the product is not to be used as part of an integrated manufacturing or industrial process in the same location as that in which the product is produced.

(f) *Preliminary function.* A *preliminary function* is a function to collect, separate, sort, store, treat, process, disassemble, or handle solid waste that is preliminary to and directly related to a qualified solid waste disposal process.

(g) *Mixed-use facilities*—(1) *In general.* If a facility is used for both a qualified solid waste disposal function (including a qualified solid waste disposal process or a preliminary function) and a non-qualified function (a mixed-use facility), then the costs of the facility allocable to the qualified solid waste disposal function are determined using any reasonable method, based on all the facts and circumstances. See § 1.103-8(a)(1) for allocation rules on amounts properly allocable to an exempt facility. Facilities qualify as functionally related and subordinate to a qualified solid waste disposal function only to the extent that they are functionally related and subordinate to the portion of the mixed-use facility that is used for one or more qualified solid waste disposal functions (including a qualified solid waste disposal process or a preliminary function).

(2) *Mixed inputs*—(i) *In general*. Except as otherwise provided in paragraph (g)(2)(ii) of this section, for each facility (or a portion of a mixed-use facility) performing a qualified solid waste disposal process or a preliminary function, the percentage of the costs of the property used for such process that are allocable to a qualified solid waste disposal process or a preliminary function cannot exceed the average annual percentage of solid waste processed in that qualified solid waste disposal process or that preliminary function while the issue is outstanding. The annual percentage of solid waste processed in that qualified solid waste disposal process or preliminary function for any year is the percentage, by weight or volume, of the total materials processed in that qualified solid waste disposal process or preliminary function that constitute solid waste for that year.

(ii) *Special rule for mixed-input processes if at least 65 percent of the materials processed are solid waste*—(A) *In general*. Except as otherwise provided in paragraph (g)(2)(ii)(B) of this section, for each facility (or a portion of a mixed-use facility) performing a qualified solid waste disposal process or preliminary function, if the annual percentage of solid waste processed in that qualified solid waste disposal process or preliminary function for each year that the issue is outstanding (beginning with the date such facility is placed in service within the meaning of § 1.150-2(c)) equals at least 65 percent of the materials processed in that qualified solid waste disposal process or preliminary function, then all of the costs of the property used for such process are treated as allocable to a qualified solid waste disposal process. The annual percentage of solid waste processed in such qualified solid waste disposal process or preliminary function for any year is the percentage, by weight or volume, of the total materials processed in that qualified solid waste disposal process or preliminary function that constitute solid waste for that year.

(B) *Special rule for extraordinary events*. In the case of an extraordinary event that is beyond the control of the operator of a solid waste disposal facility (such as a natural disaster, strike,

major utility disruption, or governmental intervention) and that causes a solid waste disposal facility to be unable to meet the 65 percent test under paragraph (g)(2)(ii)(A) of this section for a particular year, the percentage of solid waste processed for that year equals—

(1) The sum of the amount of solid waste processed in the solid waste disposal facility for the year affected by the extraordinary event and the amount of solid waste processed in the solid waste disposal facility during the following two years in excess of the amount required to meet the general 65 percent threshold for the facility during each of such two years; divided by

(2) The total materials processed in the solid waste disposal facility during the year affected by the extraordinary event. If the resulting measure of solid waste processed for the year affected by the extraordinary event equals at least 65 percent, then the facility is treated as meeting the requirements of the 65 percent test under paragraph (g)(2)(ii)(A) of this section for such year.

(iii) *Facilities functionally related and subordinate to mixed-input facilities*. Except to the extent that facilities are functionally related and subordinate to a mixed-input facility that meets the 65 percent test under paragraph (g)(2)(ii) of this section, facilities qualify as functionally related and subordinate to a mixed-input facility only to the extent that they are functionally related and subordinate to the qualified portion of the mixed-input facility that is used for one or more qualified solid waste disposal functions (including a qualified solid waste disposal process or a preliminary function).

(h) *Examples*. The following examples illustrate the application of this section:

*Example 1. Nonqualified Unused Material—Cloth*. Company A takes wool and weaves it into cloth and then sells the cloth to a manufacturer to manufacture clothing. The cloth is material that has not been used previously as a product of or otherwise used in an agricultural, commercial, consumer, governmental, or industrial operation or activity, or as a component of any such product or activity. Accordingly, the cloth is not solid waste.

*Example 2. Residual Material—Waste Coal.* Company B mines coal. Some of the ore mined is a low quality byproduct of coal mining commonly known as waste coal, which cannot be converted to energy under a normal energy-production process because the BTU content is too low. Waste coal has the lowest fair market value of any product produced in Company B's coal mining process. Waste coal is solid waste because it is residual material within the meaning of paragraph (c)(1)(i)(B) of this section and Company B reasonably expects to introduce the waste coal into a solid waste disposal process.

*Example 3. Virgin Material—Logs.* Company C cuts down trees and sells the logs to another company, which further processes the logs into lumber. In order to facilitate shipping, Company C cuts the trees into uniform logs. The trees are not solid waste because they are virgin material within the meaning of paragraph (c)(2)(i) of this section that are not being introduced into a final disposal process within the meaning of paragraph (d)(1) of this section. The division of such trees into uniform logs does not change the status of the trees as virgin material.

*Example 4. Qualified Solid Waste Disposal Process—Landfill.* Company D plans to construct a landfill. The landfill will not be subject to the final permit requirements under subtitle C of title II of the Solid Waste Disposal Act (as in effect on the date of enactment of the Tax Reform Act of 1986). As of the issue date, Company D expects that the landfill will be filled entirely with material that will qualify as solid waste within the meaning of paragraph (c) of this section. Placing solid waste into a landfill is a qualified solid waste disposal process. The landfill is a qualified solid waste disposal facility.

*Example 5. Qualified Solid Waste Disposal Process—Recycling Tires.* Company E owns a facility that converts used tires into roadbed material. The used tires are used material within the meaning of paragraph (c)(1)(i)(A) of this section that qualifies as solid waste. Between the introduction of the old tires into the roadbed manufacturing process and the completion of the roadbed material, the facility does not create any interim useful products. The process for the manufacturing of the roadbed material from the old tires is a qualified solid waste disposal process as a recycling process and the facility that converts the tires into roadbed material is a qualified solid waste disposal facility. This conclusion would be the same if the recycling process took place at more than one plant.

*Example 6. Qualified Solid Waste Disposal Process—Energy Conversion Process.* Company F receives solid waste from a municipal garbage collector. Company F burns that solid waste in an incinerator to remove exhaust gas and to produce heat. Company F further

processes the heat in a heat exchanger to produce steam. Company F further processes the steam to generate electricity. The energy conversion process ends with the production of steam. The facilities used to burn the solid waste and to capture the steam as useful energy are qualified solid waste disposal facilities because they process solid waste in an energy conversion process. The generating facilities used to process the steam further to generate electricity are not engaged in the energy conversion process and are not qualified solid waste disposal facilities.

*Example 7. Nonqualified Refurbishment.* Company G purchases used cars and restores them. This restoration process includes disassembly, cleaning, and repairing of the cars. Parts that cannot be repaired are replaced. The restored cars contain at least 30 percent of the original parts. While the cars are used material, the refurbishing process is not a qualified solid waste disposal process. Accordingly, Company G's facility is not a qualified solid waste disposal facility.

*Example 8. Qualified Solid Waste Disposal Facility—First Useful Product Rule—Paper Recycling.* (i) Company H employs an integrated process to re-pulp discarded magazines, clean the pulp, and produce retail paper towel products. Operational constraints on Company H's process do not allow for reasonable extraction, isolation, and sale of the cleaned paper pulp independently without degradation of the pulp. Company H further processes the paper pulp into large industrial-sized rolls of paper which are approximately 12 feet in diameter. At this point in the process, Company H could either sell such industrial-sized rolls of paper to another company for further processing to produce retail paper products or it could produce those retail products itself. In general, paper pulp is a useful product that is bought and sold on the market as a material for input into manufacturing or production processes. The discarded magazines are used material within the meaning of paragraph (c)(1)(i)(A) of this section. Company H's facility is engaged in a recycling process within the meaning of paragraph (d)(3) of this section to the extent that it repulps and cleans the discarded magazines generally and further to the extent that it produces industrial-sized rolls of paper under the particular circumstances here. Specifically, taking into account the operational constraints on Company H's facility that limit its ability reasonably to extract, isolate, and sell the paper pulp independently, the first useful products within the meaning of paragraph (e) of this section from Company H's recycling process are the industrial-sized rolls of paper. The portion of Company H's facility that processes the discarded magazines and produces industrial-sized rolls of paper is a qualified solid waste disposal facility, and the portion of Company

H's facility that further processes the industrial-sized rolls of paper into retail paper towels is not a qualified solid waste facility.

(ii) The facts are the same as in paragraph (i) of this *Example 8*, except that Company H is able reasonably to extract the cleaned paper pulp from the process without degradation of the pulp and to sell the cleaned paper pulp at its dock for a price that exceeds its costs of extracting the pulp from the process. Therefore, the paper pulp is the first useful product within the meaning of paragraph (e) of this section. As a result, the portion of Company H's facility that processes the discarded magazines is a qualified solid waste disposal facility, and the portion of Company H's facility that produces industrial-sized rolls of paper is not a qualified solid waste disposal facility. If, however, the only reasonable way Company H could sell the pulp was to transport the pulp to a distant market, then the costs of storing and transporting the pulp to the market may be taken into account in determining whether the pulp is the first useful product.

*Example 9. Preliminary Function—Energy Conversion Process.* (i) Company I owns a paper mill. At the mill, logs from nearby timber operations are processed through a machine that removes bark. The stripped logs are used to manufacture paper. The stripped bark has the lowest fair market value of any product produced from the paper mill. The stripped bark falls onto a conveyor belt that transports the bark to a storage bin that is used to store the bark briefly until Company I feeds the bark into a boiler. The conveyor belt and storage bin are used only for these purposes. The boiler is used only to create steam by burning the bark, and the steam is used to generate electricity. The stripped bark is solid waste because it is residual material within the meaning of paragraph (c)(1)(i)(B) of this section and Company I expects to introduce the bark into an energy conversion process within a reasonable period of time. The creation of steam from the stripped bark is an energy conversion process that starts with the incineration of the stripped bark. The energy conversion process is a qualified solid waste disposal process. The conveyor belt performs a collection activity that is preliminary and that is directly related to the solid waste disposal function. The storage bin performs a storage function that is preliminary and that is directly related to the solid waste disposal function. Thus, the conveyor belt and storage bin are solid waste disposal facilities. The bark removal process is not a preliminary function because it is not directly related to the energy conversion process and it does not become so related merely because it results in material that is solid waste.

(ii) The facts are the same as in paragraph (i) of this *Example 9*, except that the stripped

bark represents only 55 percent by weight and volume of the materials that are transported by the conveyor belt. The remaining 45 percent of the materials transported by the conveyor belt are not solid waste and these other materials are sorted from the conveyor belt by a sorting machine immediately before the stripped bark arrives at the storage bin. Fifty-five percent of the costs of the conveyor belt and the sorting machine are allocable to solid waste disposal functions.

*Example 10. Preliminary Function—Final Disposal Process.* Company J owns a waste transfer station and uses it to collect, sort, and process solid waste. Company J uses its trucks to haul the solid waste to the nearest landfill. At least 65 percent by weight and volume of the material brought to the transfer station is solid waste. The waste transfer station and the trucks perform functions that are preliminary and directly related to the solid waste disposal function of the landfill. Thus, the waste transfer station and the trucks qualify as solid waste disposal facilities.

*Example 11. Mixed-Input Facility.* Company K owns an incinerator financed by an issue and uses the incinerator exclusively to burn coal and other solid material to create steam. Each year while the issue is outstanding, 40 percent by volume and 45 percent by weight of the solid material that Company K processes in the conversion process is coal. The remainder of the solid material is either used material or residual material within the meaning of paragraph (c)(1)(i) of this section. Sixty percent of the costs of the property used to perform the energy conversion process are allocable to a solid waste disposal function.

(i) *Effective/Applicability Dates*—(1) *In general.* Except as otherwise provided in this paragraph (i), this section applies to bonds to which section 142 applies that are sold on or after October 18, 2011.

(2) *Elective retroactive application.* Issuers may apply this section, in whole, but not in part, to outstanding bonds to which section 142 applies and which were sold before October 18, 2011.

(3) *Certain refunding bonds.* An issuer need not apply this section to bonds that are issued in a current refunding to refund bonds to which this section does not apply if the weighted average maturity of the refunding bonds is no longer than the remaining weighted average maturity of the refunded bonds.

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